radiocarbon dates and a description of the samples assayed. The committee decided that the new record cards should also include the laboratory, laboratory number, method employed, and major scientific field concerned. The committee's suggestions have been followed, and a basic coding has been provided so that initial sorting of the cards is easily accomplished. There is room for each subscriber to set up an extensive code to sort the cards for his own research.

A survey indicated considerable demand for the cards, but the cost of production, $250 for a set of 5000 cards, resulted in a limited number of subscriptions. However, revision of the original plans and the generosity of the commercial houses involved has made it possible to proceed. The corporation is distributing sets of about 1000 cards each to subscribers, and there is the possibility that another 3000 cards can be delivered by the end of 1960. The remaining 1000 will be sent out when they are published.

Because the project is barely solvent, it is not going to be possible to print a surplus of these cards for nonsubscriber sale. Any organization that is contemplating purchase should communicate with Frederick Johnson, Radiocarbon Dates Association, Inc., R. S. Peabody Foundation, Box 71, Andover, Mass.

Center for Carbon-14 Determination

The International Agency for ^{14}C Determination (measurements of primary production in the sea), has been established at Charlottenlund Slot, Charlottenlund, Denmark. The agency is organized on a nonprofit basis. E. Steeman Nielsen, who is adviser on plankton research to the Danish Institute for Fisheries and Marine Research, is honorary supervisor, and the daily work is directed by Vagn Hansen of the same institute. The facilities of the agency are available to all scientific institutions in the world.

Manufacture of the carbon-14 ampoules that are used in experiments for measuring primary production in the sea requires a well-equipped laboratory and a scientist familiar with radioactive tracer work. The same is true concerning the measurements of the radioactivity of the filters containing the samples to be studied. Whereas large oceanographic institutions ordinarily have such an expert at their disposal, this is not true for many other marine laboratories.

This problem was discussed during the Symposium on Measurements of Primary Production in the Sea held at Bergen, Norway, in 1957 by the International Council for the Exploration of the Sea. An ad hoc working committee was appointed to consider the methods for the measurement of primary production. Among its recommendations which were adopted unanimously by some 80 symposium participants, was a paragraph that read: "It is suggested that a central agency be established, for example at Charlottenlund under the direction of E. Steemann Nielsen, which would provide standardized ampoules of ^{14}C, counting of ^{14}C samples, and calculation of carbon assimilation rates." In 1958 UNESCO provided funds for establishing the agency, which is now operating in space provided by the Danish Institute for Fisheries and Marine Research at Charlottenlund.

Radiotelescope under Construction

A team of ten students, directed by John D. Kraus of Ohio State University, is constructing an unusual radiotelescope under a National Science Foundation grant of $166,000. Two earlier grants by the foundation for this work have totaled $106,650.

The design, engineering, and construction of the two 360-foot-long antennas are done for the most part by the students, who work part time during the school year and on a full-time basis in the summer. Three nonstudent technical assistants are also employed on the project.

The new instrument is designed to be used in mapping radio sources in the sky at minimum cost. The installation will consist of a fixed parabolic antenna 360 feet long and 70 feet high; a flat, tiltable reflector 360 feet long and 100 feet high; and associated radio receiving equipment. The telescope is expected to go into operation in 1960.

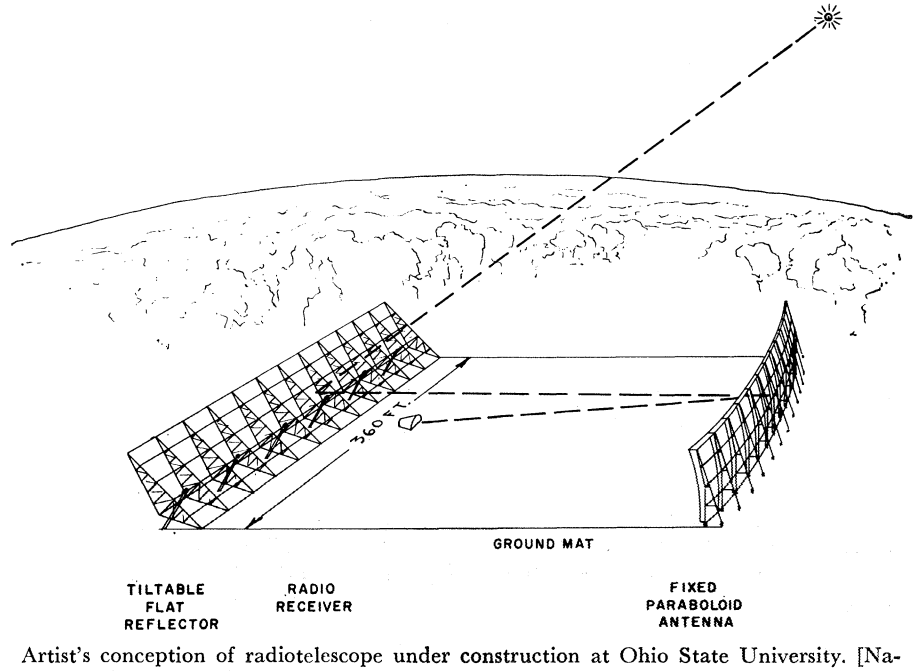
Soviet Science

Many reports, giving both accomplishments and proposals, have been published recently on Soviet scientific activities. Some of these are summarized here.

Two members of the United States Weather Bureau have reported that Soviet scientists have turned up evidence that a continental land mass lies below a great part of the ice-covered expanse of Antarctica. They said the "positive" evidence of a continent had been found by the Russians during a long, over-ice trek made in the latter part of 1958 from their main base at Mirny on the Knor Coast to the "pole of relative inaccessibility," a point about 1400 miles inland. During the trek the Soviet scientists made seismic soundings every 30 to 50 miles along the route. These indicated that the actual land mass started about 300 miles inland from the Mirny base camp.

Members of a group of astrophysicists which toured the Soviet Union last year reported that the U.S.S.R. is graduating about twice as many astronomers as the United States. They also gave their view that, although the United States now leads in astronomy, there is reason to believe that Russia may take the lead within 15 years.

Other scientific visitors to Russia report that Soviet mathematicians have made great progress in information theory and in cybernetics, two areas of mathematical study that were condemned on ideological grounds a few years ago. Work in the two fields is mostly theoretical because of the scarcity of large digital computers. Other observ-



Artist's conception of radiotelescope under construction at Ohio State University. [National Science Foundation]

ers commented on the same point, stating that Soviet computers were fewer in number, less reliable, and not as large as the computers commonly used here.

At a recent meeting of the Technical Council of the Soviet Ministry of Communications it was proposed that the development of a television relay satellite be made part of the current Seven-Year Plan. The proposal calls for the placing of a satellite in a "hovering" orbit, roughly 22,000 miles from the earth. The satellite, in orbit over the equator, would be so located that it would require one day to circle the earth. Because the earth itself rotates in that time, the result would be a satellite fixed in relationship to the earth. This could be used to relay television broadcasts to all points in the Soviet Union. One Soviet authority suggested that, on the basis of the state of rocketry in the U.S.S.R., such a project was "quite feasible." It is not known whether the proposal has been accepted by the Ministry.

Soviet scientists are reported to be planning to build a 240-inch telescope, the largest in the world. The design is said to have been completed, and plans call for the telescope to be in operation within 15 years, at a site in the Crimea. The largest now in operation is the 200-inch telescope at Mount Palomar, California.

Work of Council for Foreign Physicians Increasing

The number of foreign-trained physicians taking the qualifying examination of the Education Council for Foreign Medical Graduates is rapidly increasing. The council, with offices in Evanston, Ill., aids graduates of foreign medical schools in establishing their qualification to assume internships or residencies in United States hospitals.

Some 298 candidates took the first examination in March 1958; 844 in September 1958; 1772 in February 1959; and more than a thousand have already registered for the next examination on 22 September 1959. The number of centers where foreign medical graduates can take the examination overseas has also greatly increased. There were no foreign centers for the first examination, 30 for the second, and 44 for the third.

For the next examination there will be 15 centers in Latin America, 14 in the Far East, seven in the Near and Middle East, 13 in Europe, and one in Africa. In addition, examinations are held at various places in the United States.

In the last examination, 43.4 percent of the 1772 candidates won standard ECFMG certificates. Another 25.5 percent won temporary 2-year certificates, based on scores of 70 to 74 percent. Inadequate command of English played a major role in producing failure in the qualification examination in some of the foreign examination centers. There was one center in which three out of five candidates either failed or did very poorly on the English test. In the whole group of 494 physicians taking the examination in foreign centers, 45 showed serious inadequacy in their command of English. In contrast, among the 1278 foreign-trained physicians taking the English test in U.S. examining centers, none failed and only three did poorly. Applications for the next qualifying examination must be in the ECFMG offices at 1710 Orrington Avenue, Evanston, Illinois, by 22 June.

Indian Bird Collection

Two Harvard zoologists who spent a year and a half collecting birds in Nepal, Pakistan, and India, have returned with the largest collection of birds ever made on the Indian subcontinent. The new specimens fill a gap in the Harvard Museum's extensive collections of birds from nearly every region of the world. The birds will be invaluable not only in solving some problems in the classification of birds from this area but also in studying classification and evolution in Chinese birds, which are closely related to those from the Indian region. Raymond A. Paynter, Jr., associate curator of birds at Harvard's Museum of Comparative Zoology, and Melvin L. Bristol collected over 5500 birds, and some mammals, reptiles, and amphibians.

The expedition was cosponsored by the Peabody Museum at Yale University and the Museum of Comparative Zoology at Harvard, who will share the birds and other animals with the countries where they were collected.

Women in Science

The National Council on the Participation of Women in Science was organized on 21 March at a meeting in the Jefferson Hotel in Washington, D.C. Mary Louise Robbins, associate professor of bacteriology at the George Washington University School of Medicine, was elected chairman. Robert J. Rutman, of the John Harrison Laboratory of Chemistry, University of Pennsylvania, was elected deputy chairman, as was Murray Vernon King of Brooklyn Polytechnic Institute. Elizabeth Weisburger, National Cancer Institute, National Institutes of Health, was elected secretary; and Ethaline Cortelyou, technical editor, Atlantic Division, Aerojet-General Corporation, Frederick, Md., was elected treasurer.

The objective of the council is to encourage more extensive participation of women in science. The organization is the outgrowth of a conference on problems of women in science—sponsored by the American Association of Scientific Workers and Sigma Delta Epsilon, graduate women's scientific research association—that met on 29 December in Washington during the annual meeting of the AAAS. Arthur S. Flemming, Secretary of Health, Education, and Welfare, was the keynote speaker at the December meeting, which was attended by more than 150 women.

The chairman of the March conference was Melba Phillips, physicist at Washington University, St. Louis. Cosponsoring organizations were the Business and Professional Women's Foundation; National Federation of Business and Professional Women's Clubs, including the District of Columbia Federation; and the United States National Student Association. Official representatives were sent by the Women's Bureau of the Department of Labor; the National Science Foundation; Goucher College, Baltimore; Elmira College, Elmira, New York; and Smith College, Northampton, Mass.

NATO Oceanographic Center

The United States, in cooperation with eight members of the North Atlantic Treaty Organization, will establish this spring an international scientific center for oceanographic research in La Spezia, Italy, to be known as the SACLANT Antisubmarine Warfare Research Center [Supreme Allied Command, Atlantic]. It will be commissioned on 2 May in ceremonies at the Italian naval base at La Spezia, where Italy also has an oceanographic research establishment. Rear Admiral John T. Hayward, assistant chief of naval operations for research and development, has been a prime mover in the creation of the center, for which the United States will provide $2.5 million during the next 2 years.

Scientists will be recruited from the nine nations taking part in the project —the United States, Great Britain, France, Italy, West Germany, the Netherlands, Norway, Denmark, and Canada. At the outset only one or two investigators from each nation will participate, but the group is expected to grow.

The new facility will be devoted primarily to basic oceanographic research, rather than to actual development of antisubmarine weapons. In particular, it will emphasize research on the characteristics of the relatively shallow ocean areas, such as are found in the Mediterranean and along the coasts of Europe and the United States.